26. The viral vector of claim 14, wherein said host does not express heterologous RNA polymerase.

In accordance with 37 CFR § 1.121(c), attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version With Markings to Show Changes Made".

REMARKS

Applicants have amended claims 1-13 to address the issues raised by the Examiner and to more clearly express the inventive concept. Applicants have further introduced new dependent claims 14-26. New claims 14-17 restrict foreign gene insertion to intergenic sites that "allow for the expression in a host cell of both Sendai viral genes contained within said Sendai viral genome and said foreign gene". Support for these claims is found in the specification as originally filed, particularly at pages 13-15. New claims 18 and 19 further define the viral vector as formed entirely without the use of a helper virus. Support for these claims is found in the specification as originally filed, particularly at page 12, lines 23-27. New dependent claims 20-26 further define the host cell as not expressing heterologous RNA polymerase. Support for these claims is found in the specification as originally filed, particularly at page 8, lines 3-5, at page 24, lines 12-17, and at page 12, lines 20-27. Thus, at present, claims 1-26 are pending in the application. Applicants submit that no new matter has been added.

Applicants respectfully submit that the rejections and objections set forth in the Office Action mailed January 24, 2002 are moot in view of the amendments presented herein. However, in the interest of expediting prosecution, Applicants wish to take this opportunity to address some of the issues raised by the Examiner in the previous Office Action. Applicants believe that some of the Examiner's concerns may stem from a misunderstanding of the

invention. Applicants have revised the pending claims to more clearly identify what is claimed and present the following summary for Examiner's benefit.

Recently, viral vectors have been used as a vehicle for gene therapy. However, in order to transfer foreign genes into viral vectors, viral particles must first be "reconstituted" from the viral genome with foreign genes integrated by gene manipulation. The term "reconstituted" refers to the artificial formation of viral genome nucleic acid and the production of recombinant viruses *in vitro* or intracellularly. Prior to Applicants invention, a reconstitution system for Sendai virus had not been established. For example, difficulties in separating the reconstituted desired virus from the harmful helper viruses posed a difficult problem.

The present invention provides the first successful demonstration of reconstituting Sendai virus particles. The present invention provides an efficient system for reconstituting Sendai virus, thereby enabling gene manipulation of Sendai virus and providing Sendai viral vectors useful in the field of gene therapy. Specifically, in the present invention, viral particles are formed from nucleic acids utilizing replication factors of Sendai virus provided by another source (e.g., the "host"). Once particles are formed, the Sendai viral replication factors need no longer be exogenously supplied.

Accordingly, Applicants respectfully request that the Examiner reconsider the outstanding objections and rejections in the in light of the amendments and remarks herein:

Priority

Further to the Examiner request, Applicants have amended the present specification to contain a *specific* reference to both parent U.S. application (of which the present application is a continuation) and PCT application (of which the parent U.S. application is a continuation).

In addition, Applicants submit herewith certified translations of both PCT/JP96/03069, filed October 22, 1996, and JP 07-285417, filed November 1, 1995.

Double Patenting Rejections

At the outset, Applicants note that the Examiner provisionally rejected claims 11 and 12 under the judicially created doctrine of obviousness-type double patenting for being obvious in view of claims 1-5 and 7-11 of co-pending Application Serial No. **09/436,504**. The Examiner alleges that the co-pending claims to methods of producing chemokines using Sendai virus and virus-infected eggs overlaps in scope with the recombinant Sendai virus claims herein. However, Applicants are unfamiliar with this application and believe the Examiner may have listed an erroneous serial number. Applicants respectfully request clarification.

With regards to the remaining obviousness-type double patenting rejections, involving co-pending applications Serial Nos. 09/132,521, 09/702,498, and 09/823,699, Applicants respectfully submit that the amendments presented herein render these rejections moot. However, in the interest of expediting prosecution, Applicants will submit a terminal disclaimer in the noted co-pending applications as needed once the claims of the present application are patented.

Rejections Under 35 U.S.C. 112, First Paragraph

The Examiner rejected claims 1-13 under 35 U.S.C. § 112, first paragraph because the specification "while being enabling for a 'disseminative' virus with a foreign gene insertion before the NP ORF, does not reasonably provide enablement for the full scope of 'disseminative' viruses with inserts at any genome location, or with [any] Sendai genes deleted or inactivated." (Previous Office Action at page 5 - emphasis added). The Examiner concludes that undue experimentation would be required to determine other permissive insertion sites and suitable deletions or inactivations.

Applicants submit that the claim amendments presented herein render the Examiner's enablement concerns moot. However, in the event the Examiner is not convinced, Applicants submit the following comments:

A specification is presumed to be in compliance with the enablement requirement of 112, first paragraph. The burden is on the Patent Office to establish a reasonable basis to question enablement. The test of enablement is whether one reasonably skilled in the art could make and use

the claimed invention from the disclosures in the patent coupled with information known in the art without undue experimentation. For an Examiner to sustain a rejection on the grounds of enablement, she must provide evidence that the claimed invention could not be made and used without undue experimentation.

The test for undue experimentation is not merely quantitative, since a considerable amount of experimentation is permissible, if it is merely routine, or if the specification in question provides a reasonable amount of guidance with respect to the direction in which the experimentation should proceed. In fact, there are many factors to be considered when determining whether the specification is enabled and whether any necessary experimentation is "undue". They include: the breadth of the claims; the nature of the invention; the state of the prior art; the level of ordinary skill in the art; the level of predictability in the art; the amount of direction provided by the inventor; the existence of working examples; and the quantity of experimentation needed to make or use the invention.

Regarding the issue of viral gene inactivation or deletion, the Examiner concludes that, "considering the complete lack of guidance in the specification as to which Sendai virus gene (if any) can be deleted or inactivated without destroying the 'disseminative capability' and considering that the guidance as to sites permitting insertion while retaining the 'disseminative capability' is limited to one single site", undue experimentation would be required to enable the full scope of the invention as claimed. Applicants submit that the Examiner has not only misconstrued the claims but mischaracterized the teachings of the specification.

First, contrary to the Examiner's assertion, the term "disseminative" is not synonymous with the term "non-defective". Rather, the term "disseminative capability" is defined in the specification at page 2, paragraph 2, as "the capability to form infectious particles or their equivalents complexes and disseminate them to other cells following the transfer of nucleic acid into host cells by infection or artificial techniques and the intracellular replication of said nucleic acid." Conversely, the term "non-defective" suggested by the Examiner implies that the virus is fully functional in terms of replication, infection and dissemination. Thus, the claimed vector may indeed be disseminative without being non-defective (i.e., the viral genome may indeed be defective in the areas of replication

and infection so long as it retains the ability to disseminate).

Second, the claims do not encompass any and all Sendai viral gene deletions and alterations, but only those that allow the vector to "retain the disseminative capability of wild-type Sendai virus" (see claim 1 as amended herein). Accordingly, deletions and alterations that affect the ability of the virus to disseminate are expressly excluded from the scope of the claims. Applicants submit that one or ordinary skill in the art could readily distinguish between operable and inoperable modifications using routine experimentation, following the guidance of the present specification taken in conjunction with the teachings and instructions of the prior art. As noted in prior responses, the invention even provides assays that can be used by any person of ordinary skill in the art to test whether the disseminative capability of a recombinant Sendai virus has been compromised (see Examples 2 and 3, pages 17-24).

Third, on the issue of guidance in the specification, at page 15, paragraph 2, Applicants set forth a number of exemplary deletions and alterations that would not destroy the 'disseminative capability'. Furthermore, Applicant's specification and the prior art establish that the M, F and HN genes are involved in dissemination. Accordingly, the remaining viral genes (NP, P, and L) of the Sendai virus are not involved in dissemination and clearly may be deleted or altered without affecting the disseminative capability of the virus. To further clarify this point, claim 15 has been amended to recite that the deletion or alteration involves "at least one gene encoding Sendai viral protein selected from the group consisting of NP, P, and L proteins". Thus, Applicants submit that the claims as amended are commensurate in scope with the specification as originally filed and clearly enabled from the guidance provided in the specification, taken in conjunction with the teachings prior art.

Regarding the issue of foreign gene insertion, Applicants submit that operable foreign gene insertion sites could be readily identified by those skilled in the art and further could be routinely assessed and assayed for expression simply by following the guidance of the present specification, taken in conjunction with the teachings and instructions of the prior art. For example, from the findings herein, one would readily predict that a foreign gene could be inserted at any intergenic site within the Sendai viral genome (e.g., between NP and P, P and M, M and F, F and HN and HN and

L) and expressed by the claimed vector without disrupting the expression of adjacent or downstream viral genes. Such intergenic insertions (and others) are described in the article by Tokusumi et al. (Virus Research (2002) 86:33-38), a copy of which is provided with the supplemental IDS submitted herewith; see specifically Figures 1 and 2. All of the SeV plasmids studied by Tokusumi et al. provided both uninterrupted expression of Sendai viral proteins and measurable expression of the inserted foreign gene (e.g., SEAP, beta-galactosidase). Thus, Tokusumi et al. confirm Applicants' contention - that foreign gene insertion need not affect expression of the Sendai viral proteins and that measurable foreign gene expression by a recombinant Sendai viral vector is not restricted to a single insertion site. In fact, Tokusumi et al. demonstrate that a number of operable insertion sites exist within Sendai viral genome. Accordingly, it is clear that foreign gene expression may occur at insertion sites other than the NP ORF site described in the Examples of the present specification.

In conclusion, Applicants submit that claims 1-26 are enabled by the accompanying specification and, therefore, meet the enablement requirement of 35 U.S.C. § 112, first paragraph. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection under section 112, first paragraph.

Rejections Under 35 U.S.C. 112, Second Paragraph

The Examiner rejected claims 1-13 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claims the invention. Specifically:

(i) the intended scope of a "foreign gene" is not clear from the specification;

(ii) the intended scope of "a desired foreign gene inserted" from the phrase "having a desired foreign gene inserted or a desired gene deleted or inactivated" is unclear, in that it is not clear whether the recitation includes or excludes modifications such as replacement of part of a Sendai gene without fully deleting or inactivating the Sendai gene;

(iii) it is not clear what constitutes a "protein of an equivalent activity to said NP, P, or L proteins" because these proteins have many activities.

With regards to item (i), it is unclear whether the Examiner finds the term "foreign gene" to be vague and indefinite *per se* or only indefinite in the noted context. The test for indefiniteness is whether one of ordinary skill in the art would understand the bounds or the claim, when read in light of the specification and in the context of the prior art. Thus, claim language cannot be analyzed in a vacuum but must be interpreted in light of the specification, the teachings of the prior, and the reasonable interpretation given by one of ordinary skill. In this case, Applicants respectfully submit that one of ordinary skill in the art would understand that the term "foreign gene" in the context of the present claims is synonymous with the term "exogenous gene", both of which refer to a nucleotide sequence not found in the Sendai virus in its natural form. This interpretation is consistent with discussion in the specification at pages 13 -14.

With regards to items (ii) and (iii), Applicants have canceled the objectionable terminology from the claims and, thus, respectfully submit these rejections are now moot.

Accordingly, Applicants respectfully submit that claims 1-26 meet the requirements of 35 U.S.C. § 112, second paragraph.

Rejections Under 35 U.S.C. 102 and 103

The Kato Reference:

The Examiner rejected claims 1-13 under 35 U.S.C. § 102(b) for being anticipated by Kato et al. (Genes to Cells, June 1996). The Examiner cited specifically pages 573-574.

Applicants respectfully submit that the claim amendments presented herein render these rejections moot. However, in the event that the Examiner feels that they are applicable to the newly presented claims, Applicants submit the following comments:

In order to qualify as "prior art" under 35 USC 102(b), a reference's publication date must be more than one year prior to Applicant's filing date. The present application has an effective US filing date of October 22, 1996. Moreover, it claims priority to Japanese Application No. 07-

285,417 filed November 1, 1995. Thus, the relevant date for prior art purposes is November 1, 1995. Since the Kato et al. article was published in June of 1996, it cannot qualify as "prior art" to the present application under any section of 35 U.S.C. § 102, much less 35 U.S.C. § 102(b) which requires publication one year prior to filing. Thus, Applicants respectfully submit that the article to Kato et al. is not "prior art" to the present invention and is therefore irrelevant to the patentability of pending claims 1-26. Accordingly, Applicants respectfully request reconsideration and withdrawal of the above rejection under section 102(b).

The Conzelmann Reference:

The Examiner further rejected claims 1-13 under 35 U.S.C. § 103(a) for being unpatentable over Conzelmann (U.S. Patent No. 6,033,886). According to the Examiner, Conzelmann broadly claims a recombinant infectious replicating paramyxovirus comprising an insertion in an open reading frame, a pseudogene, or intergenic region (see claims 1 and 9). Though Conzelmann does not specifically claim Sendai virus or recite "disseminative capacity", he does identify Sendai virus as a paramyxovirus and provides working examples of "disseminative" recombinant viruses for a different negative stranded RNA virus. The Examiner then concludes that it would have been obvious to one of ordinary skill in the art to choose Sendai virus as an obvious species within the scope of claimed paramyxoviruses and to produce "disseminative" virus analogous to the specific examples provide in the specification.

Applicants respectfully disagree with the Examiner's characterization of the Conzelmann teaching and the conclusion of obviousness. Applicants further submit that the claim amendments presented herein render these rejections moot. However, in the event that the Examiner feels that they are applicable to the amended and/or newly presented claims, Applicants submit the following comments:

The Conzelmann reference is directed to "genetically manipulated infectious replicating non-segmented negative strand RNA virus mutants" (see col. 1, lines 9-11), particularly attenuated mutants that find utility as vaccines. Accordingly, Conzelmann defines such mutations as

"alterations of appropriate [RV] sequences such that resulting [RV] mutant is still infectious and replicating, i.e., the mutant [RV] is capable to infect susceptible cells and its mutant RNA genome is capable of autonomously [sic] replication and transcription, i.e., no co-expression of [RV] N, P, and L proteins is required." (see col.3, lines 1-7). Furthermore, "to avoid risk that the vaccine viruses may spread to other animals more susceptible to the virus", "it goes without saying" that the mutants should be "capable of only one single round of infection, followed by replication." (see col. 3, lines 8-11 and 52-62). "Once they have infected a host cell. . .there is no possibility to form new infectious viruses" (see col. 4, lines 14-18). It is particularly telling that all of Conzelmann's examples are directed to mutations that affect the activity of the viral proteins involved in host cell attachment and membrane fusion (i.e., proteins involved in dissemination), namely the RV matrix protein (M) and transmembrane glycoprotein (G).

The present invention is directly inapposite to Conzelmann. Specifically, the recombinant Sendai viral vector of the pending claims must retain its ability to disseminate (i.e., spread to other cells) but may be defective in terms of its ability to autonomously transcribe and replicate. In that vein, the "mutations" contemplated by the present invention comprise deletions or inactivations of the Sendai virus *replication factors* NP, P, and L but not deletions or inactivations of the Sendai virus genes *dissemination factors*, M, F, and HN. Thus, Applicants submit that the claimed invention is distinct from and not rendered obvious by the Conzelmann reference.

Moreover, the present invention is directed to a recombinant, disseminative Sendai viral vector comprising a *reconstituted* Sendai viral genome. As noted in the specification at pages 5-6, Sendai virus is distinct from other negative strand viruses, particularly those of the Rhabdovirus family such as rabies virus, in terms of protein components and virion structure. Thus, it is also likely that Sendai virus has a different detailed mechanism of gene expression and replication. Techniques for reconstituting other negative strand viruses, such as those of the Rhabdovirus family, do not support reconstitution of the Sendai virus, a member of the Paramyxovirus family. Accordingly, following the teachings of Conzelmann, the examples of which are exclusively directed to Rhabdoviruses, will not result in a recombinant Sendai viral genome as required by the present claims.

Furthermore, although Conzelmann suggests that the overall genomic organization in the non-segmented negative-stranded RNA viruses of the various families is comparable, that there are only minor differences in the overall genomic organization between paramyxoviridae and rhabdoviridae, Applicants submit that there is no reasonable scientific basis for inferring that the biology of expressing a foreign protein using a rhabdovirus, such as the Rabies virus, reasonably extrapolates to paramyxoviruses, particularly the Sendai virus. Rhabdoviruses and paramyxoviruses are different in their morphology, genomic structure, and properties of viral proteins. Moreover, as noted in Applicants' specification at pages 6-7, previous virus reconstitution techniques for constructing vectors for gene therapy from other negative strand RNA viruses, such as influenza and rabies virus, have been difficult to adapt to paramyxoviruses.

While mature particles of rhabdoviruses have a distinct bullet- or rod-like shape, the particles of a paramyxoviruses are spherical, reflecting differences in the properties of viral proteins that contribute to particle formation. Unlike rhabdoviruses, which have an envelope consisting entirely of G protein, the paramyxovirus consists of two envelope proteins, HN and F. HN and F proteins are encoded separately in the viral genomic RNA, and are functionally different, the HN contributes to adsorption onto a target cell, and F induces fusion to the cell membrane. Functional experiments have also demonstrated that the envelope proteins of the two viruses are different. For example, studies of phenotypic mixing between a paramyxovirus (Sendai virus) and an rhabdovirus (vesicular stomatitis virus; "VSV") suggested that the Sendai virus envelope proteins are not able to compensate for G protein of VSV in budding. See, for example, Metsikko K, et al: J Virol 63: 5111-5118, 1989. A copy of this reference is provided with the supplemental IDS filed herewith.

In addition, the rabies virus G protein inserts into cellular membranes, allowing for fusion of the virus to occur. The G protein then undergoes a conformational shift under acidic conditions that stabilizes the protein, exposing a hydrophobic domain that then inserts into cellular membrane. Fusion of the rabies virus occurs in the endocytic vesicle, where there is an acidic pH. Cells that are infected with rabies virus can be recognized by the prominent

cytoplasmic inclusion bodies; these are called Negri bodies. On the other hand, the paramyxovirus induces fusion at neutral pH at the cell surface.

Conzelmann himself recognized differences between rhabdoviruses and paramyxoviruses. For example, regarding the use of reverse genetics for construction of recombinant viruses, Conzelmann has stated "whereas the entire rhabdovirus life-cycle, including assembly and budding of virions, is correctly performed in the presence of vaccinia virus, Sendai paramyxovirus virion assembly is prevented by vaccinia virus," and he asserted that such peculiarities "have to be taken account in the design of reverse genetics experiments". See, Conzelmann KK: J Gen Virol 77: 381-389, 1996, at page 385, left col. A copy of this reference is provided with the supplemental IDS filed herewith. Furthermore, in Sendai virus, unlike rabies virus, efficient replication is observed only when the total nucleotide number of the genome consists of a multiple of six. See, Calain P, et al: J Virol 67: 4822-4830, 1993, cited in the IDS filed December 1, 2000. Based on the differences in the structure and property of the viral proteins between the two viruses, Conzelmann has also acknowledged that "differences in the assembly process apparently exist between rhabdoviruses [and paramyxoviruses]" (see, Conzelmann KK, 1996, *ibid*, at page 385, right col.).

Given these aforementioned differences, it is clear that rhabdovirus and paramyxovirus expression systems are not equivalent and that the disclosure of one cannot render obvious a claim to the other. Rather, it would be more natural to think that the biological principles underlying rhabdoviruses are <u>not</u> interchangeable with paramyxoviruses for expressing a foreign protein. As discussed above, rhabdoviruses such as Rabies virus and paramyxoviruses such as Sendai virus are neither identical nor closely-related. Rhabdoviruses and paramyxoviruses are morphologically, physiologically, and genetically distinct. Given these differences, the expression of a foreign protein in a rhabdovirus, such as the Rabies virus, and paramyxovirus, such as the Sendai virus, is also dissimilar. Absent a logical predicate, it is unreasonable to assume that rabies virus and paramyxoviruses are equivalent and their expression systems are interchangeable. Accordingly, Conzelmann's disclosure of a Rabies virus system cannot serve to obviate the recombinant Sendai viral vector claimed.

Finally, Applicants submit that the Conzelmann teachings cannot be readily modified as suggested by the Examiner to arrive at Applicants' claimed invention. Specifically, according to Conzelmann, a foreign gene was inserted in the rabies virus into the pseudogene region. This pseudogene region is located between the G and L open reading frames and is transcribed as a part of the G cistron mRNA (G/Ψ mRNA). The pseudogene region is characteristic of the rabies virus and other members of the lyssavirus genus, and is conserved in all members of the lyssaviruses analyzed so far. See Schnell MJ, et al: EMBO J 13: 4195-4203, 1994, at page 4197, right col. A copy of this reference is provided with the supplemental IDS filed herewith. However, in contrast to the rabies virus, paramyxoviruses such as the Sendai virus do not have a pseudogene region. In an article published after the filing his patent applications, Conzelmann stated: "The RV (rabies virus) Ψ region represents the most plastic region of all non-segmented negative-stranded RNA virus genomes and apparently has the disposition to accept insertions of additional genes (emphasis added)" (see, Schnell et al., 1994, *ibid*, at page 4201, left col.). In particular, Conzelmann has targeted the pseudogene region as an exceptional region seen in lyssavirus genomes. However, as one cannot apply this principle to paramyxoviruses, the teachings of Conzelmann cannot reasonably be construed to suggest Sendai viral vectors.

For these reasons, Applicants respectfully submit that the present invention is not rendered obvious by the Conzelmann disclosure. Accordingly, Applicants respectfully request reconsideration and withdrawal of the above rejection under section 103(a).

Conclusion

In sum, Applicants submit that the response herein fully addresses rejections set forth in the outstanding Office Action. Applicants submit that claims 1-26 presented herein are in condition for allowance and respectfully petition for an early notice of allowance. If the Examiner believes a conference would expedite prosecution, he is invited to contact the undersigned.

The previous Office Action set forth a three-month period for response, response being due on or before **April 24, 2002**. Applicants submit herewith a three-month extension of time, extending the deadline for response from April 24, 2002 to on or before **July 24, 2002**. Accordingly, Applicants submit that this response is timely and no additional fee is required. However, in the event that additional fees are required, the Commissioner is authorized to charge such fees to our Deposit Account No. 50-2101.

Respectfully submitted,

Date: 07/24/02

By: _____

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the specification:

Paragraph at page 1, beginning at line 2 has been amended as follows:

The present application is a Continuation of U.S. Application Serial No. 09/071, 591, filed May 1, 1998, now abandoned, which ~~claims priority to~~ is a continuation of PCT/JP96/03069, filed October 22, 1996, which claims priority to Japanese Application No. JP 7-28517, filed November 1, 1995.--

In the claims:

1. (Amended) A recombinant Sendai ~~virus~~ viral vector containing a genome having a ~~desired~~ foreign gene inserted, or a ~~desired~~ Sendai viral gene deleted or ~~inactivated~~altered, ~~but~~ wherein said viral vector retains ~~retaining~~ the disseminative capability of wild-type Sendai virus.

2. (Amended) The recombinant Sendai viral vector ~~virus~~ of claim 1, wherein one or more ~~than one~~ genes encoding viral functional proteins is altered.

3. (Amended) The recombinant Sendai ~~virus~~ viral vector of claim 2, wherein the recombinant Sendai virus carries a foreign gene capable of being expressed in ~~hosts~~host cells.

4. (Amended) An RNA molecule comprising RNA contained in the recombinant Sendai ~~virus~~ viral vector of claim 1.

5. (Amended) An RNA molecule comprising cRNAs of RNAs contained in the recombinant Sendai ~~virus~~ viral vector of claim 1.

6. (Amended) A kit comprising:
   a. a DNA molecule containing a template cDNA capable of transcribing RNA of claim 4 or 5, and

b. a unit capable of transcribing said RNA with said DNA as template *in vitro* or intracellularly.

7. (Amended) A kit comprising:
   a. a host cell expressing ~~the~~ Sendai viral proteins NP, P, and L ~~proteins of Sendai virus or a protein of an equivalent activity to said NP, P/C or L proteins~~, and
   b. the RNA molecule of claim 4 or 5.

8. (Amended) A method for producing the recombinant, disseminative Sendai ~~virus~~ viral vector of claim 1, comprising transfecting RNA of ~~Claims~~ claim 4 or 5 to a host cell wherein the host cell expresses ~~the~~ Sendai viral proteins NP, P~~/C~~, and L ~~proteins of Sendai virus, or a protein of an equivalent activity to said NP, P/C, or L proteins~~.

9. (Amended) A kit consisting of the following three components:
   a. a host cell expressing ~~the~~ Sendai viral proteins NP, P~~/C~~, and L ~~proteins of Sendai virus~~;
   b. a DNA molecule containing a template cDNA capable of transcribing RNA or cRNA of claim 4 or 5; and
   c. a unit capable of transcribing said RNA with said DNA as template *in vitro* or intracellularly.

10. (Amended) A method for producing the recombinant, disseminative Sendai ~~virus~~ viral vector of claim 1, wherein said method comprises introducing into a host cell expressing Sendai viral proteins NP, P, and L a DNA molecule containing a template cDNA capable of transcribing RNA of claim 4 or 5, and a unit capable of transcribing said RNA with said DNA as a template *in vitro* or intracellularly ~~into a host expressing the NP, P/C, and L proteins of Sendai virus~~.

11. (Amended) A method for producing a foreign protein, comprising a process of infecting a host cell with the recombinant, disseminative Sendai ~~virus~~ viral vector of Claim 3, and recovering the expressed foreign proteins.

12. (Amended) A cell culture medium or allantoic fluid containing expressed foreign proteins and Sendai virus particles or parts thereof, obtainable by:
    a. initially transfecting the recombinant, disseminative Sendai ~~virus~~ viral vector of claim 3 to a first host cell, wherein said foreign gene integrated therein encodes a foreign protein;
    b. allowing said recombinant, disseminative Sendai ~~virus~~ viral vector to disseminate to other host cells in the cell culture medium or around the allantoic fluid following said initial transfection of said recombinant, disseminative Sendai ~~virus~~ viral vector into said host cells; ~~and~~
    c. allowing said host cells to express said foreign protein; and
    ~~c.~~d. recovering said culture medium or allantoic fluid.

13. (Amended) A DNA molecule for expressing a protein encoded by a foreign DNA integrated into a Sendai viral vector DNA, said Sendai viral vector DNA comprising:
    a. a promoter;
    b. a cDNA encoding an RNA molecule corresponding to the reconstituted ~~recombinant~~ Sendai viral genome ~~RNA~~ of claim 1; and
    c. DNA encoding a foreign DNA, wherein said foreign DNA is integrated within said Sendai viral genome and the Sendai viral genome containing said foreign DNA is inserted downstream of said promoter in an orientation for transcribing an antisense RNA of both said Sendai ~~virus~~ viral genome and said foreign DNA.

14. (New) The recombinant, disseminative Sendai viral vector of claim 1, wherein said foreign gene is inserted (a) prior to a first viral gene within said Sendai viral genome, (b) between a pair of adjacent viral genes within said Sendai viral

genome, or (c) after a final viral gene within said Sendai viral genome, in a manner that allows for the expression in a host cell of both Sendai viral genes contained within said Sendai viral genome and said foreign gene.

15. (New) The recombinant, disseminative Sendai viral vector of claim 14, wherein at least one gene encoding Sendai viral protein selected from the group consisting of NP, P, and L proteins, is deleted or altered.

16. (New) An RNA molecule comprising RNA contained in the recombinant, disseminative Sendai viral vector of claim 14.

17. (New) An RNA molecule comprising a cRNA of RNA contained in the recombinant, disseminative Sendai viral vector of claim 14.

18. (New) The recombinant Sendai viral vector of claim 1, wherein said virus is produced entirely without the use of a helper virus.

19. (New) The recombinant Sendai viral vector of claim 14, wherein said virus is produced entirely without the use of a helper virus.

20. (New) The kit of claim 7, wherein said host does not express heterologous RNA polymerase.

21. (New) The kit of claim 9, wherein said host does not express heterologous RNA polymerase.

22. (New) The method of claim 8, wherein said host does not express heterologous RNA polymerase.

23. (New) The method of claim 10, wherein said host does not express heterologous RNA polymerase.

24. (New) The method of claim 11, wherein said host does not express heterologous RNA polymerase.

25. (New) The cell culture medium of claim 12, wherein said first host cell does not express heterologous RNA polymerase.

26. (New) The viral vector of claim 14, wherein said host does not express heterologous RNA polymerase.